

SMALL PRESSURE LOGGER



COMPACT,
ACCURATE,
DEPENDABLE

The RBRsolo⁴ D is a compact, lightweight pressure logger designed for high-precision oceanographic measurements in demanding environments. It combines exceptional accuracy and resolution with extremely low power consumption, enabling multi-year deployments using any standard AA battery chemistry. The RBRsolo⁴ D is engineered to deliver reliable, long-term performance across a wide range of oceanographic applications.

FEATURES



Long
deployments



Compact and
lightweight



One AA
battery



Up to 32Hz
sampling



USB-C
download



Infinite
memory*

* not really, but we stopped counting at billions of samples.

Available configurations

- ▶ RBRsolo⁴ D pressure; up to 2Hz continuous sampling, depths up to 1000m
- ▶ RBRsolo⁴ D|fast pressure; up to 32Hz sampling, depths up to 1000m
- ▶ RBRsolo⁴ D|tide32 pressure; up to 32Hz bursts with tidal averaging
- ▶ RBRsolo⁴ D|wave32 pressure; up to 32Hz bursts with wave analysis

Variants

- ▶ RBRsolo⁴ D|deep pressure; depths up to 10000m
- ▶ RBRsolo⁴ D|2x pressure; double the autonomy of RBRsolo⁴ D

SMALL SINGLE-SENSOR LOGGER

COMPACT, ACCURATE, DEPENDABLE

The RBRsolo⁴ D is built for long, accurate field use with low effort. Delivering $\pm 0.01\%$ full-scale accuracy in a compact, field-ready form factor, it combines lab-grade performance with deployment simplicity. USB-C enables fast configuration and data download, while support for standard AA battery chemistry provides global power options. Paired with Ruskin software for intuitive setup and retrieval, the RBRsolo⁴ D is designed for exceptionally long deployments, using RBR's latest ultra-low-power electronics to maximise endurance without compromising precision. Data are stored in RSK format and are accessible using RBR's open Python and MATLAB toolboxes, enabling direct integration into workflows and automated processing pipelines. Ruskin provides Excel exports and publication-ready charts in PNG and PDF formats, ensuring straightforward reporting, analysis, and archiving.

Specifications

Physical

Storage	Infinite memory ¹	
Power	Any AA cell(s), any chemistry	
Communication	USB-C	
Clock drift	± 60 seconds per year	
Depth rating ²	up to 1700m (plastic), up to 10000m (Ti)	
Diameter	25.4mm (plastic), 25mm (Ti)	
Length	1x cell	2x cell
plastic	227mm	293mm
Ti	232mm	302mm
Weight		
plastic	140g	174g
Ti	310g	405g

¹ Not really, but we stopped counting at billions of samples.

² Actual depth rating is determined by pressure sensor.

Pressure

Range ¹	
plastic	20 / 100 / 300 / 1000dbar
Ti	1000 / 2000 / 6000 / 10000dbar
Accuracy ²	$\pm 0.01\%$ full scale
Resolution	$< 0.001\%$ full scale
Typical stability ²	$\pm 0.01\%$ full scale / year
Time constant	< 10 ms

¹ Recommended pressure ranges for wave measurements are 20 and 100dbar.

² The 20dbar sensors are limited to an initial accuracy of $\pm 0.05\%$ full scale and a typical stability of $\pm 0.05\%$ full scale / year.

Deep variant

Explore up to 10km deep with RBRsolo⁴ D|deep

2x variant

Double autonomy with RBRsolo⁴ D|2x

Barometric variant

The RBRsolo⁴ D is also available as a barometric instrument. It shares the same form factor and configuration as the rest of the product line. The resulting dataset may be used to provide atmospheric correction of other water level time series, using Ruskin or RSKtools.

Barometric variant

Range	700-1200hPa (7-12dbar absolute)*
Accuracy	± 0.5 hPa (0.005dbar)
Resolution	< 0.01 hPa (0.0001dbar)
Typical stability	± 0.5 hPa/year (0.005dbar/year)
Time constant	< 10 ms
Operating temperature	-10 to +80°C

* The barometer pressure sensor should not be deployed in water.



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